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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/025,763

12/26/2001

Atsushi Watakabe

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06/06/2006

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EXAMINER

DOVE, TRACY MAE

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/025,763

Applicant(s)

WATAKABE ET AL.

Examiner

Tracy Dove

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 4,7-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/6/06;1/6/06</u> | 6) <input checked="" type="checkbox"/> Other: <u>IDS 9/9/05</u>                         |

### **DETAILED ACTION**

This Office Action is in response to the communication filed on 9/9/05. Claims 1-27 are pending. Claims 4 and 7-27 are withdrawn as being directed toward a nonelected species.

#### ***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 3/6/06, 1/6/06 and 9/9/05 have been considered by the examiner.

#### ***Election/Restrictions***

Applicant's election with traverse of Group I, claims 1-12, in the reply filed on 11/10/04 is acknowledged. Claims 13-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant has also elected the species perfluoro(2,2-dimethyl-1,3,dioxole) for fluoromonomer A and the species of formula (2) wherein SO<sub>2</sub>X is SO<sub>3</sub>H for fluoromonomer B. Applicant stated claims 1-3 and 5-6 read on the elected species. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/10/04.

#### ***Double Patenting***

The rejection of claims 1-12 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,610,789 is withdrawn. A proper terminal disclaimer has been filed.

#### ***Claims Analysis***

The claims recite "a solid polymer electrolyte material", which is not given patentable weight because the limitation appears in the preamble of the claim.

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***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim language such as “and X has the same meaning as X in the above formula (1)” is improper because claim 1 may be amended or canceled. See claim 5.

Claim 5 recites fluoromonomer A is perfluoro(3-butenyl vinyl ether) which is a non-cyclic monomer compound. Claim 1 requires fluoromonomer A to be an alicyclic structure.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by, and alternatively unpatentable over, Morgan et al., US 6,395,848.

Morgan teaches polymerization of fluoromonomers. Fluorinated monomers that can be polymerized in the process include fluoroolefins having 2-10 carbon atoms, fluorinated dioxoles and fluorinated vinyl ethers. Preferred fluoroolefin monomers include tetrafluoroethylene (TFE). Preferred cyclic fluorinated monomers include perfluoro-2,2-dimethyl-1,3-dioxole (PDD). The fluoromonomers may be polymerized alone to form a homopolymer or may be polymerized with one or more other fluoromonomers or other monomers (6:43-67). A copolymer of TFE with PDD is specifically disclosed by Morgan. The fluoropolymers can also contain units derived from monomers that introduce functional groups into the polymer to modify surface characteristics, to provide crosslinking sites and the like. A preferred additional functional monomer is a fluorovinylether such as  $\text{CF}_2=\text{CF}-\text{O}-\text{CF}_2\text{CF}_2-\text{SO}_2\text{F}$  (7:59-8:13).

Thus the claims are anticipated. Morgan does not explicitly state the fluorovinylether is  $\text{CF}_2=\text{CF}-\text{O}-\text{CF}_2\text{CF}_2-\text{SO}_3\text{H}$  (elected species of formula (2) wherein  $\text{SO}_2\text{X}$  is  $\text{SO}_3\text{H}$  for fluoromonomer B). However, the present claims are not directed toward a method of producing the copolymer, but are directed toward the produced copolymer (product claims). The functional  $-\text{SO}_2\text{F}$  group of Morgan is a precursor to the  $-\text{SO}_3\text{H}$  functional group of the elected species. This is admitted on page 9 of the present specification. Since the polymerization of Morgan is performed in an aqueous dispersion (hydrolytic treatment/aqueous solution),  $-\text{SO}_2\text{F}$  would have been converted to  $-\text{SO}_3\text{H}$  during polymerization. Product-by-process limitations are not given patentable weight (in the absence of unexpected results). The copolymer of Morgan appears to be the same as the claimed copolymer.

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***Response to Arguments***

Applicant's arguments with respect to the elected claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 30, 2006

  
TRACY DOVE  
PRIMARY EXAMINER